REMARKS

This application has been carefully reviewed in light of the Office Action dated August 21, 2007. Claims 1 to 10 and 12 are in the application, with Claims 11 and 13 having been cancelled herein. Claims 1, 6 and 12 are independent. Reconsideration and further examination are respectfully requested.

The drawings were objected to for informalities. With regard to the objections to Figures 9 to 12, Applicants submit herewith replacement drawing sheets in which Figures 9 to 12 have been labeled as --PRIOR ART-- to attend to the objections. The Office Action also entered objections because the drawings "fail to show Ts and Tf as described in the specification, page 20." (Office Action, page 2). Applicants respectfully traverse this objection. In particular, Applicants submit that one skilled in the art would readily understand the specification's disclosure regarding Ts and Tf, and that depicting Ts and Tf in a drawing would not significantly add to this understanding. More particularly, one skilled in the art would readily understand how sampling of a waveform is conducted at appropriate time intervals (Ts) over a predetermined period of time (Tf). Accordingly, reconsideration and withdrawal of the objections are respectfully requested.

Claim 3 was objected to for an informality. Claim 3 has been amended to correct the typographical error. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

Claim 9 was rejected under 35 U.S.C. § 112, second paragraph. Amendments to Claim 9 are believed to obviate the rejection. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1, 2, 9, and 12 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,384,715 (Lytton). Claims 11 and 13 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,384,715 (Lytton). Claim 3 was rejected under 35 U.S.C. § 103(a) over Lytton in view of U.S. Patent No. 5,384,543 (Bible). Claims 4, 5, and 10 were rejected under 35 U.S.C. § 103(a) over Lytton and further in view of Bible and U.S. Patent No. 5,086,279 (Wochnowski). Claims 6 to 8 were rejected under 35 U.S.C. § 103(a) over Wochnowski and Lytton. Reconsideration and withdrawal of the rejections are respectfully requested.

Referring to the specific language of the claims, independent Claim 1 defines a system for counting the number of layers of a multilayer object, comprising oscillation means for emitting an electromagnetic wave to strike either the top surface or the bottom surface of a multilayer object, reception means for receiving electromagnetic waves generated by reflection of the electromagnetic wave at the interfaces of the layers of the multilayer object, and processing means for counting the number of layers of the multilayer object on the basis of signals of the reflected electromagnetic waves obtained by the reception means. The electromagnetic wave oscillated by the oscillation means contains a component having a frequency in a range from 30 GHz to 100 THz.

Independent Claim 12 is directed to a method generally corresponding to the system of Claim 1.

Independent Claim 6 defines a system for counting the number of layers of a multilayer object, comprising oscillation means for emitting an electromagnetic wave to strike either the top surface or the bottom surface of a multilayer object, reception means for receiving an electromagnetic wave generated by transmission of the electromagnetic wave through the

layers of the multilayer object, and processing means for detecting a phase shift of the transmitted wave relative to the electromagnetic wave before striking the electromagnetic object and counting the number of layers of the multilayer object on the basis of the phase shift. The electromagnetic wave oscillated by the oscillation means contains a component having a frequency in a range from 30 GHz to 100 THz.

The applied references are not seen to disclose or to suggest the features of independent Claims 1, 6 and 12, and in particular, are not seen to disclose or to suggest the feature of an oscillation means or step for emitting an electromagnetic wave to strike either the top surface or the bottom surface of a multilayer object, wherein the electromagnetic wave oscillated contains a component having a frequency in a range from 30 GHz to 100 THz.

In entering the rejections of Claims 11 and 13, the Office Action concedes that Lytton does not explicitly disclose the above-mentioned feature. However, the Office Action asserts that it would have been obvious to modify Lytton to include frequencies in the range from 30 GHz to 100 THz, "[s]ince the frequency of transmitted signal is based on what the device under test is (i.e. higher frequency for thinner materials)." (Office Action, page 6). Applicants respectfully disagree that the asserted modification would have been obvious.

In particular, contrary to the Office Action's characterization, Lytton is seen to be directed to determining "material characteristics of individual layers" (column 1, lines 6 to 7). As such, Lytton's system is not seen to relate to using "higher frequency for thinner materials".

The remaining applied references, namely Bible and Wochnowski, either alone or in any permissible combination, are not seen to cure the deficiencies of Lytton. Accordingly, independent Claims 1, 6 and 12 are believed to be allowable.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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